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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/699,503	10/31/2000	David C. Cushing	2566-106	1384

6449 7590 03/01/2004

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WASHINGTON, DC 20005

EXAMINER

AKERS, GEOFFREY R

ART UNIT	PAPER NUMBER
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3624

DATE MAILED: 03/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/699,103

Applicant(s)

Cushing

Examiner

Ames, g

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/10/03
- 2a) ☐ This action is FINAL.
- 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16, 18-21 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16, 18-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner. on _____
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Request for Continued Examination(RCE)

1. This action is issued in response to applicant's Request for Continued Examination(RCE)(Paper #16) and Amendment F(Paper #14) entered 12/30/03.
2. Claims 1-4,6-7,9,13-14,18 were amended. New claims 20-21 were added. Claim 17 was cancelled.
3. Claims 1-16 and 18-21 as amended, and newly added, are pending.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-16, 18-21 as amended, and newly added, are rejected under 35 USC 103(a) Keiser(US Pat. No: 6,505,174) in view of Gary(US Pat. No: 6,618,707) in view of Plexusgroup(1999) and further in view of ITG(Spring 2000).

6. As per claims 1-16,18-21 as amended and newly added,Keiser teaches a system for executing trades according to trading strategies(Abstract)(Fig 2-4) where the servers are connected to a plurality of clients over the Internet(Fig 1).Keiser also teaches trading securities over the day(Fig 3/302) as well as setting prices of securities(Fig

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4/408) and setting timed buy/sell orders(Fig 5/502/504) and determining price movement as well as controlling the number of buy and sell orders in the queue(Fig 6/606) as well as limit pricing(Fig 11).Keiser further teaches a client computer(Fig 1/12) with a CPU(Fig 1/16) and a data storage device(Fig 1/20) as well as a server computer(Fig 1/14) connected over the internet. Keiser further teaches placing orders in a queue(Fig 2/208) and executing the pricing and trading program(Fig 2/216).Keiser also teaches retrieving the buy and sell orders from the queue and matching the buy and sell orders(Fig 3/302) and executing and generating the market price program(Fig 3/304). Keiser further teaches measuring the imbalance between buy and sell orders(Fig 4/400) and determining the price movement(Fig 4/402).Keiser further teaches executing a trading program in response to the imbalance and consequent price movement of the securities(Fig 4/406).Keiser further teaches generating buy and sell orders(Fig 5/502) as well as issuing stop trade commands(Fig 6/608). Keiser teaches a user interface(Fig 7/700) as well as global exchange variables for volatility, engine control and general trading parameters(Fig 18). Keiser also teaches that users may access the system over a network using a standard interface(col 2 lines 25-27). In addition to that taught by Keiser, Gary also teaches an automated exchange for trading securities(Abstract)(Fig 1) including filters, qualification processing(Fig 2/34/36/39/38/29/31/30/37/35/32/27)(Fig 3(a))(Fig 3(b))(Fig 3(c))(Fig 3(d))(Fig 4)(Fig 5)(Fig 6)(Fig 7)(Fig 8)(Fig 9)(Fig 10)(col 4 line 55-col 6 line 21).Gary further teaches submission of customer orders(Abstract)(Fig 1/13/15).Gary further teaches an exchange(Fig 1/1) and a reporting entity(Fig 1/19) and a clearance entity(Fig 1/21) and

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market makers(Fig 1/7/5/3).Gary also teaches an interface(Fig 2/23 through which orders are submitted entering the order process(Fig 2/25).Gary also teaches block orders(Fig 2/35).Gary teaches orders entered by customers(col 7 lines 14-15). In addition to that taught by Gary, Plexusgroup also teaches volume weighted average price trading strategies implemented for pension plans(page 1/A).Plexusgroup also teaches comparison of a buy trade against the VWAP to determine worth(Page 1/A).Plexusgroup further teaches that VWAP judges a trade solely by its relative rank(page 2/B).Plexusgroup also teaches that VWAP can make a trader insensitive to price(Page 4/D) and has been known since 1986. In addition to that taught by Plexusgroup, ITG also teaches short-term price improvement trading software(page 1).ITG teaches the smart server is designed for trades up to 10,000 shares(page 1/A).ITG also teaches that the Smart Server is an automated trading agent(Page 1/B) for response to real time data. ITG also teaches its Smart Server performed VWAP in 1998(Page 2/C). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Keiser in view of Gary to teach part of the above.The motivation to combine is to teach a computer implemented securities trading system with algorithmic functions and which can be improve liquidity and assure the fair trading of orders as enunciated by Gary(col 4 lines 55-59).It also would have been obvious to one of ordinary skill in the art at the time of the invention to combine Keiser in view of Gary and further in view of Plexusgroup to teach further applicant's disclosure. The motivation to combine is to teach a computer implemented securities trading system with algorithmic functions and which can be improve liquidity and which utilizes a VWAP

trading strategy as enunciated by Plexusgroup(page 1). The motivation to combine is to teach a computer implemented securities trading system with algorithmic functions and which can be improve liquidity and which utilizes a SPI(Short Term Price Improvement) trading strategy as enunciated by ITG(page 1).

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-16, 18-21` are further rejected under 35 USC 112(2nd) for failing to point out and distinctly claim what applicant regards is the invention.The subject claims are indefinite with respect to delineating the VWAP and SPI algorithms in sufficient detail for which trade executions are predicated.

Response to Arguments

9. Applicant's arguments with respect to claims 1-16, 18-21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. **THIS ACTION IS MADE NON-FINAL.**

11. Any questions concerning this communication should be addressed to the primary examiner of record, Dr. Geoffrey Akers, P.E., who can be reached between 6:30 AM and 5:00 PM Monday through Friday at 703-306-5844. If attempts to contact

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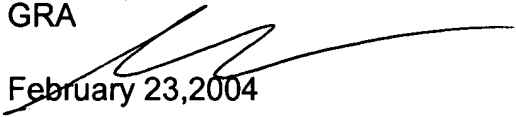
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the primary examiner are unsuccessful, the primary examiner's superior, Mr. Vincent Millin, SPE, may be telephoned at (703)-308-1065.

The fax number for Formal or Official faxes and Draft or Informal faxes to Technology Center 3600 or this Art Unit is (703)-308-3687.

GRA


February 23, 2004

DR. GEOFFREY R. AKERS, P.E.
PRIMARY EXAMINER